NPA code for other purposes.[13] CPC supports location portability to a limited extent.[14] It is not clear how operator services, such as busy line verification, collect calls, calling card calls, and third-party billing, would be handled under this proposal.[15] Routing telephone calls based on carrier portability codes likely will require, among other things, that the software be modified in each network switch located in the NPA within which this system is deployed. It also would require modification to the Local Exchange Routing Guide (LERG) on the same NPA-basis so that the LERG contains routing data based on carrier portability codes.

5. Release-to-Pivot (RTP). Carriers using RTP attempt to complete all calls as they presently do to a switch that is assigned a given NPA-NXX. If the dialed number has not been ported, the call will be completed exactly as it is currently. If the dialed number has been ported from the switch (the "release" switch), the call will be released back to a previous switch (the "pivot" switch) in the call path along with rerouting information (RI). The pivot switch uses the RI to reroute the call to the new switch. For example, a switch with pivot capabilities would determine whether a particular call should proceed to a release capable switch. The pivot switch would formulate an initial address message (IAM) containing a capability indicator informing the release switch that the call can be released back to the pivot switch. Once the release switch receives the call, it would use a translation table to determine whether the called number has been ported. If it has, the switch then would formulate a release message containing a cause value (RTP) and an LRN for delivery back to the pivot switch. The LRN would be included in the release message as a redirection number. The pivot switch then would access a translation table and determine routing based on the first six digits of the LRN. A new IAM then would be formulated and the call redirected to the appropriate switch.[16]

6. RTP must traverse the existing LEC network by means of switches equipped with release and pivot functionality and an internal database for call setup.[17] RTP using the location routing number to route calls is a single-number solution.[18] RTP

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[13] This is so because MCI Metro's method would replace the dialed NPA code with the three-digit CPC, which effectively removes that code from the pool of available NPA codes. Bell Atlantic Comments at 13-15; CA LNP Task Force Report at 14; INC Report at 82.

[14] Compare GTE Comments at 19 (CPC does not support location portability) with INC Report at 81 (CPC supports location portability within a rate center).

[15] NYNEX Reply Comments at 6-7; SBC Communications Reply Comments at 15; MCI Comments at 14. See also INC Report at 92-93.

[16] This description of call flow employing the RTP method was adapted from the Proposed Final Draft on number portability produced by the Industry Numbering Committee. See INC Report at 98-99.

[17] Id. at 98; CA LNP Task Force Report at 10. See also AT&T Reply Comments at 13-14.

[18] CA LNP Task Force Report at 11.

does not involve the assignment of "pseudo numbers," which minimizes number exhaust.[19] RTP should not interfere with emergency services or operator and directory services, but may increase call setup time and post-dial delay.[20] RTP can support service as well as service provider portability, but it is unclear to what extent RTP can support location portability.[21] Finally, RTP supports portability between wireless carriers, but it is unclear whether it can support wireless-wireline portability.[22] Some parties believe that RTP is not appropriate for long-term implementation of service provider portability because of its reliance on the networks of incumbent LECs, the potential for post-dial delay, and its inefficient use of signaling links.[23]

7. Query on Release (QOR). Also known as "Look Ahead," QOR is similar to RTP in that queries are performed only for calls to ported numbers.[24] However, QOR is different in several respects. Prior to querying a routing database, the switch from which the call originates reserves the appropriate call path through the SS7 network and attempts to complete a call to the switch where the NPA-NXX of the dialed number resides. If the number is ported, the call is released back to a previous switch in the call path, which performs a query to determine the LRN of the new serving switch. The call then is routed to the serving switch. This method differs from RTP in that when a number has been ported from the Release switch, the previous switch in the call path will query the database to obtain the routing information instead of that information being supplied by the Release switch. In other words, the switch that redirects the call also performs the query, thus eliminating the need for the carrier to which the number was originally assigned to provide routing information.[25] Pacific Bell indicates that QOR can support both location and service portability, since any call can be released back and routed through a non-incumbent provider's network.[26]

8. Local Area Number Portability (LANP). Under this proposal, each customer is assigned a ten-digit customer number address (CNA) which is mapped to a unique ten-digit network node address (NNA), both of which are stored in routing

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[19] Pacific Bell Comments at 19.

[20] CA LNP Task Force Report at 11; INC Report at 100-03.

[21] CA LNP Task Force Report at 11; INC Report at 100.

[22] CA LNP Task Force Report at 11.

[23] AT&T Reply Comments at 13-14; CCTA Further Comments at 5.

[24] Pacific Bell Further Comments at 4 n.10.

[25] Id. at 4 & n.10.

[26] Id. at 7 n.18.

databases.[27] A service provider receives the called number (the CNA), queries a routing database, translates the called number from its CNA to its associated NNA, uses the NNA to route the call, and passes the NNA to the serving end office which, based on the NNA, terminates the call to the appropriate line or trunk. Unlike LRN, which assigns a unique location routing number to each switch, LANP requires a separate NNA for each CNA. The California Local Number Portability Task Force indicates that LANP does not result in post-dial delay or require changes in the wireless networks.[28] In addition, LANP supports service provider, service, and unrestricted location portability.[29] Moreover, the CNA can be disassociated from the switches and moved to a common pool of numbers for reassignment.[30] However, LANP may impact emergency services, as the information displayed at the Public Safety Answering Point (PSAP) will initially be the NNA rather than the CNA.[31] Some parties and state commissions believe that the LANP method is not a viable option for long-term number portability because it is too complicated to implement.[32]

9. Non-Geographic Number (NGN). Under this approach, which overlays the existing LEC network, a ported subscriber is assigned a non-geographic number (NGN) and a geographic number (GN) that indicates the customer's physical location and the serving central office. If the customer moves or changes local service providers, the GN -- but not the NGN -- changes, similar to 800 service. When the NGN is dialed, the NGN is translated into the GN through a database query, and the call is routed based on the GN as is done today. All other calls are processed as they are currently. A database dip is required only for calls to ported numbers.[33] Ported calls will experience longer call setup delay and post-dial delay.[34] Emergency and operator and directory services are not affected.[35] This approach supports service provider, service, and unlimited location portability.[36] On the other hand, NGN strains numbering resources by forcing all ported

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[27] See Notice, 10 FCC Rcd at 12364-65; U.S. Intelco Comments at 6-8.

[28] CA LNP Task Force Report at 16.

[29] Id.

[30] Id.; INC Report at 65-66; Notice, 10 FCC Rcd at 12364-65.

[31] CA LNP Task Force Report at 15.

[32] AT&T Comments at 26; Bell Atlantic Comments at 14-15; BellSouth Comments at 30-31.

[33] GTE Comments at 9-12; CA LNP Task Force Report at 17.

[34] GTE Comments at 10, 16; INC Report at 104, 107.

[35] GTE Comments at 13, 18; INC Report at 109.

[36] GTE Comments at 16-17; INC Report at 111.

customers to limited non-geographic numbers, requires a nationwide cut-over, and requires an initial change of telephone numbers to obtain portability.[37]

2. Non-database methods

10. Remote Call Forwarding (RCF). RCF is an existing LEC service that redirects calls in the telephone network and can be adapted to provide a semblance of service provider number portability.[38] If a customer transfers his or her existing telephone number from Carrier A to Carrier B, any call to that customer is routed to the central office switch operated by Carrier A that is designated by the NXX code of the customer's telephone number. Carrier A's switch routes that call to Carrier B, translating the dialed number into a number with an NXX corresponding to a switch operated by Carrier B. Carrier B then completes the routing of the call to its customer. The change in terminating carriers is transparent to the calling party. Disadvantages of RCF include the following: (1) it requires the use of two, ten-digit telephone numbers and thus strains number plan administration and contributes to area code exhaust; (2) it generally does not support several custom local area signalling services (CLASS), such as caller ID, and may degrade transmission quality, because it actually places a second call to a transparent telephone number; (3) it can handle only a limited number of calls to customers of the same competing service provider at any one time; (4) it may result in longer call set-up times; (5) it requires the use of the incumbent LEC network for routing of calls; (6) it may enable incumbents to access competitors' proprietary information; (7) it may result in more complicated resolution of customer complaints; (8) the potential for call blocking may be increased; and (9) it may impose substantial costs upon new entrants.[39]

11. Flexible Direct Inward Dialing (DID). DID works similarly to RCF, except the original service provider routes calls to the dialed number over a dedicated facility to the new service provider's switch instead of translating the dialed number to a new number.[40] DID has many of the same limitations as RCF, although DID can process more simultaneous calls to a competing service provider.[41]

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[37] AT&T Comments at 27-28; AT&T Reply Comments at 16-17; MCI Reply Comments at 16-17.

[38] See Notice, 10 FCC Rcd at 12369.

[39] See id.; Sprint Comments at 17; AT&T Reply Comments at 11-12; Cablevision Lightpath Reply Comments at 10; Teleport Comments at 7; MCI Comments at 20-22; Ad Hoc Telecommunications Users Committee Reply Comments at 5.

[40] See Notice, 10 FCC Rcd at 12369.

[41] See id.; Sprint Comments at 17; AT&T Reply Comments at 12-14; Cablevision Lightpath Reply Comments at 10; Teleport Comments at 7; MCI Comments at 20-22; Ad Hoc Telecommunications Users Committee Reply Comments at 5.

12. Other. We are aware of three derivatives of RCF and DID, all of which require routing of all incoming calls to the terminating switch identified by the NXX code of the dialed phone number, and involve the loss of CLASS functionalities. Unlike RCF and DID, they use LEC tandem switches to aggregate calls to a particular competing service provider before those calls are routed to that provider.[42] In addition, Cablevision Lightpath advocates use of Trunk Route Indexing (TRI), which it claims routes calls directly to the competitor's interconnection facilities and supports CLASS features.[43] Finally, Directory Number Route Indexing (DNRI) is a method which first routes incoming calls to the switch to which the NPA-NXX code originally was assigned.[44] DNRI then routes ported calls to the new service either through a direct trunk or by attaching a temporary "pseudo NPA" to the number and using a tandem, depending on availability.

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[42] See Notice, 10 FCC Rcd at 12370. Under the first RCF/DID derivative method, enhanced remote call forwarding (ERCF), a call is routed to the LEC switch corresponding to the NXX code of the dialed telephone number. The dialed number then is assigned an ERCF "translation" which consists of the same number preceded by a 10XXX prefix. The XXX is the carrier ID code assigned to the competitive exchange provider. This 12 to 15-digit number (telephone number with 10XXX prefix) is sent to a tandem switch that recognizes the 5-digit prefix, strips it out, and routes the call to the competitive exchange provider's switch.

A second derivative method, route index/portability hub, also requires the call to be routed to the LEC switch corresponding to the NXX code of the dialed number. The LEC switch inserts a 1XX prefix onto the front of the telephone number. This 1XX code identifies the competitive service provider to which the call will be routed. This 10 to 13-digit number (telephone number with the 1XX prefix) is transmitted to the LEC tandem switch to which the competitive exchange provider is connected. The tandem switch strips the 1XX prefix from the dialed number, and routes the call to the competitive exchange provider's switch, from where the routing of the call is terminated.

A third derivative method, hub routing with AIN, is similar to route index/portability hub, except that rather than the receiving LEC switch interpreting the routing information, the LEC switch interrogates a remote database that contains routing information. Having obtained this routing information from the database, the LEC switch routes the call via a tandem switch to the terminating competitive exchange provider's switch. This method may require that the LEC's tandem switch be equipped with the ability to interrogate a database. Id. at 12370 n.56.

[43] Cablevision Lightpath Reply Comments at 7-8.

[44] USTA April 4, 1996 Ex Parte Letter.

APPENDIX F - IMPLEMENTATION SCHEDULE

Implementation must be completed by the carriers in the relevant MSAs during the periods specified below:

10/97-12/97		1/98-3/98		4/98-6/98	
Chicago, IL	3	Detroit, MI	6	Indianapolis, IN	34
		Akron, OH	20	Milwaukee, WI	35
				Columbus, OH	38
Philadelphia, PA	4	Washington, DC	5	Pittsburgh, PA	19
		Baltimore, MD	18	Newark, NJ	25
				Norfolk, VA	32
Atlanta, GA	8	Miami, FL	24	New Orleans, LA	41
		Fort Lauderdale, FL	39	Charlotte, NC	43
		Orlando, FL	40	Greensboro, NC	48
				Nashville, TN	51
				Las Vegas, NV	50
		Cincinnati, OH	30		
		Tampa, FL	23		
New York, NY	2	Boston, MA	9	Nassau, NY	13
				Buffalo, NY	44
Los Angeles, CA	1	Riverside, CA	10	Orange Co, CA	15
		San Diego, CA	14	Oakland, CA	21
				San Francisco, CA	29
				Rochester, NY	49
Houston, TX	7	Dallas, TX	11	Kansas City, KS	28
		St. Louis, MO	16	Fort Worth, TX	33
				Hartford, CT	46
Minneapolis, MN	12	Phoenix, AZ	17	Denver, CO	26
		Seattle, WA	22	Portland, OR	27

7/98-9/98		10/98-12/98	
Grand Rapids, MI	56	Toledo, OH	81
Dayton, OH	61	Youngstown, OH	85
Cleveland, OH	73	Ann Arbor, MI	95
Gary, IN	80	Fort Wayne, IN	100
Bergen, NJ	42	Scranton, PA	78
Middlesex, NJ	52	Allentown, PA	82
Monmouth, NJ	54	Harrisburg, PA	83
Richmond, VA	63	Jersey City, NJ	88
		Wilmington, DE	89
Memphis, TN	53	Greenville, SC	67
Louisville, KY	57	Knoxville, KY	79
Jacksonville, FL	58	Baton Rouge, LA	87
Raleigh, NC	59	Charleston, SC	92
West Palm Beach, FL	62	Sarasota, FL	93
Birmingham, AL	66	Mobile, AL	96
		Columbia, SC	98
Honolulu, HI	65	Tulsa, OK	70
Providence, RI	47	Syracuse, NY	69
Albany, NY	64	Springfield, MA	86
San Jose, CA	31	Ventura, CA	72
Sacramento, CA	36	Bakersfield, CA	84
Fresno, CA	68	Stockton, CA	94
		Vallejo, CA	99
San Antonio, TX	37	El Paso, TX	74
Oklahoma City, OK	55	Little Rock, AR	90
Austin, TX	60	Wichita, KS	97
		New Haven, CT	91
Salt Lake City, UT	45	Omaha, NE	75
Tucson, AZ	71	Albuquerque, NM	76
		Tacoma, WA	77

DA 96-1124

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Telephone Number Portability	)	CC Docket No. 95-116
	)	RM 8535
	)	

ERRATUM

Released: July 15, 1996

1. On June 27, 1996, the Commission adopted the First Report and Order and Further Notice of Proposed Rulemaking (Order) in the above-captioned proceeding, CC Docket No. 95-116, FCC 96-286, released July 2, 1996. This erratum amends footnotes 449 and 459 of the Order by replacing "Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, First Report and Order, CC Docket 94-54, FCC 96-263 (adopted June 12, 1996)" with "Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, First Report and Order, CC Docket 94-54, FCC 96-263 (rel. July 12, 1996)."

2. This erratum also amends Appendix B by adding "§ 52.1(c) The term *covered SMR* means either 800 MHz and 900 MHz SMR licensees that hold geographic area licenses or incumbent wide area SMR licensees that offer real-time, two-way switched voice service that is interconnected with the public switched network, either on a stand-alone basis or packaged with other telecommunications services. This term does not include local SMR licensees offering mainly dispatch services to specialized customers in a non-cellular system configuration, licensees offering only data, one-way, or stored voice services on an interconnected basis, or any SMR provider that is not interconnected to the public switched network."

3. This erratum also amends Appendix B by adding "§ 52.1(g) The term *incumbent wide area SMR licensee* has the same meaning as that term is defined in Section 20.3 of this chapter."

4. This erratum also amends Appendix B by redesignating existing "§ 52.1(c)" as "§ 52.1(d)," existing "§ 52.1(d)" as "§ 52.1(e)," existing "§ 52.1(e)" as "§ 52.1(f)," existing "§ 52.1(f)" as "§ 52.1(h)," existing "§ 52.1(g)" as "§ 52.1(i)," existing "§ 52.1(h)" as "§ 52.1(j)," existing "§ 52.1(i)" as "§ 52.1(k)," existing "§ 52.1(j)" as "§ 52.1(l)," existing "§ 52.1(k)" as "§ 52.1(m)," existing "§ 52.1(l)" as "§ 52.1(n)," existing "§ 52.1(m)" as

"§ 52.1(o)," existing "§ 52.1(n)" as "§ 52.1(p)," existing "§ 52.1(o)" as "§ 52.1(q)," existing "§ 52.1(p)" as "§ 52.1(r)," existing "§ 52.1(q)" as "§ 52.1(s)," existing "§ 52.1(r)" as "§ 52.1(t)," existing "§ 52.1(s)" as "§ 52.1(u)," and existing "§ 52.1(t)" as "§ 52.1(v)."

5. This erratum also amends Appendix B, final rule § 52.11(b), by deleting "(as defined in Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, First Report and Order, CC Docket No. 94-54, FCC 96-263 (adopted June 12, 1996))."

6. This erratum also amends Appendix B of the Order by replacing "Appendix A to Part 52" in final rule § 52.3(b), (e), (f) with "the Appendix to Part 52." This erratum also replaces "Appendix A to Part 52" with "Appendix to Part 52."

7. This erratum also amends the Appendix to Part 52, as set forth in Appendix B of the Order, and Appendix F of the Order. The Appendix to Part 52 and Appendix F currently state that implementation of number portability must be completed by the carriers in "Akron, OH," the 20th largest Metropolitan Statistical Area (MSA), during 1/98-3/98, and in "Cleveland, OH," the 73rd largest MSA, during 7/98-9/98. This erratum amends the Appendix to Part 52 and Appendix F to state that implementation of number portability must be completed by the carriers in "Cleveland, OH," the 20th largest MSA, during 1/98-3/98, and in "Akron, OH," the 73rd largest MSA, during 7/98-9/98.

8. In addition, the Appendix to Part 52 and Appendix F currently state that implementation of number portability must be completed by the carriers in "Birmingham, AL," the 66th largest MSA, during 7/98-9/98, and in "Greenville, SC," the 67th largest MSA, during 10/98-12/98. This erratum amends the Appendix to Part 52 and Appendix F to state that implementation of number portability must be completed by the carriers in "Greenville, SC," the 66th largest MSA, during 7/98-9/98, and in "Birmingham, AL," the 67th largest MSA, during 10/98-12/98.

9. Also, Appendix D of the Order currently states that "Akron, OH" is the 20th largest MSA, and that "Cleveland, OH" is the 73rd largest MSA. This erratum amends Appendix D to state that "Cleveland, OH" is the 20th largest MSA, and that "Akron, OH" is the 73rd largest MSA. Appendix D of the Order currently states that "Birmingham, AL" is the 66th largest MSA with a population of "872,000," and that "Greenville, SC" is the 67th largest MSA with a population of "837,000." This erratum amends Appendix D to state that "Greenville, SC" is the 66th largest MSA with a population of "873,000," and that "Birmingham, AL" is the 67th largest MSA with a population of "872,000."

FEDERAL COMMUNICATIONS COMMISSION

Richard K. Welch

Richard K. Welch
Chief, Policy and Program Planning Division,
Common Carrier Bureau

APPENDIX to Part 52 -- Deployment Schedule for Long-Term Database Methods for Local Number Portability

Implementation must be completed by the carriers in the relevant MSAs during the periods specified below:

10/97-12/97		1/98-3/98		4/98-6/98	
Chicago, IL	3	Detroit, MI	6	Indianapolis, IN	34
		Cleveland, OH	20	Milwaukee, WI	35
				Columbus, OH	38
Philadelphia, PA	4	Washington, DC	5	Pittsburgh, PA	19
		Baltimore, MD	18	Newark, NJ	25
				Norfolk, VA	32
Atlanta, GA	8	Miami, FL	24	New Orleans, LA	41
		Fort Lauderdale, FL	39	Charlotte, NC	43
		Orlando, FL	40	Greensboro, NC	48
				Nashville, TN	51
				Las Vegas, NV	50
		Cincinnati, OH	30		
		Tampa, FL	23		
New York, NY	2	Boston, MA	9	Nassau, NY	13
				Buffalo, NY	44
Los Angeles, CA	1	Riverside, CA	10	Orange Co, CA	15
		San Diego, CA	14	Oakland, CA	21
				San Francisco, CA	29
				Rochester, NY	49
Houston, TX	7	Dallas, TX	11	Kansas City, KS	28
		St. Louis, MO	16	Fort Worth, TX	33
				Hartford, CT	46
Minneapolis, MN	12	Phoenix, AZ	17	Denver, CO	26
		Seattle, WA	22	Portland, OR	27

7/98-9/98		10/98-12/98	
Grand Rapids, MI	56	Toledo, OH	81
Dayton, OH	61	Youngstown, OH	85
Akron, OH	73	Ann Arbor, MI	95
Gary, IN	80	Fort Wayne, IN	100
Bergen, NJ	42	Scranton, PA	78
Middlesex, NJ	52	Allentown, PA	82
Monmouth, NJ	54	Harrisburg, PA	83
Richmond, VA	63	Jersey City, NJ	88
		Wilmington, DE	89
Memphis, TN	53	Birmingham, AL	67
Louisville, KY	57	Knoxville, KY	79
Jacksonville, FL	58	Baton Rouge, LA	87
Raleigh, NC	59	Charleston, SC	92
West Palm Beach, FL	62	Sarasota, FL	93
Greenville, SC	66	Mobile, AL	96
		Columbia, SC	98
Honolulu, HI	65	Tulsa, OK	70
Providence, RI	47	Syracuse, NY	69
Albany, NY	64	Springfield, MA	86
San Jose, CA	31	Ventura, CA	72
Sacramento, CA	36	Bakersfield, CA	84
Fresno, CA	68	Stockton, CA	94
		Vallejo, CA	99
San Antonio, TX	37	El Paso, TX	74
Oklahoma City, OK	55	Little Rock, AR	90
Austin, TX	60	Wichita, KS	97
		New Haven, CT	91
Salt Lake City, UT	45	Omaha, NE	75
Tucson, AZ	71	Albuquerque, NM	76
		Tacoma, WA	77

APPENDIX D - 100 LARGEST METROPOLITAN STATISTICAL AREAS (MSAs) AND THEIR POPULATIONS

1.	Los Angeles, CA	9,150,000	41.	New Orleans, LA	1,309,000
2.	New York, NY	8,584,000	42.	Bergen, NJ	1,304,000
3.	Chicago, IL	7,668,000	43.	Charlotte, NC	1,260,000
4.	Philadelphia, PA	4,949,000	44.	Buffalo, NY	1,189,000
5.	Washington, DC	4,474,000	45.	Salt Lake City, UT	1,178,000
6.	Detroit, MI	4,307,000	46.	Hartford, CT*	1,156,000
7.	Houston, TX	3,653,000	47.	Providence, RI*	1,131,000
8.	Atlanta, GA	3,331,000	48.	Greensboro, NC	1,107,000
9.	Boston, MA*	3,211,000	49.	Rochester, NY	1,090,000
10.	Riverside, CA	2,907,000	50.	Las Vegas, NV	1,076,000
11.	Dallas, TX	2,898,000	51.	Nashville, TN	1,070,000
12.	Minneapolis, MN	2,688,000	52.	Middlesex, NJ	1,069,000
13.	Nassau, NY	2,651,000	53.	Memphis, TN	1,056,000
14.	San Diego, CA	2,621,000	54.	Monmouth, NJ	1,035,000
15.	Orange Co., CA	2,543,000	55.	Oklahoma City, OK	1,007,000
16.	St. Louis, MO	2,536,000	56.	Grand Rapids, MI	985,000
17.	Phoenix, AZ	2,473,000	57.	Louisville, KY	981,000
18.	Baltimore, MD	2,458,000	58.	Jacksonville, FL	972,000
19.	Pittsburgh, PA	2,402,000	59.	Raleigh, NC	965,000
20.	Cleveland, OH	2,222,000	60.	Austin, TX	964,000
21.	Oakland, CA	2,182,000	61.	Dayton, OH	956,000
22.	Seattle, WA	2,180,000	62.	West Palm Beach, FL	955,000
23.	Tampa, FL	2,157,000	63.	Richmond, VA	917,000
24.	Miami, FL	2,025,000	64.	Albany, NY	875,000
25.	Newark, NJ	1,934,000	65.	Honolulu, HI	874,000
26.	Denver, CO	1,796,000	66.	Greenville, SC	873,000
27.	Portland, OR	1,676,000	67.	Birmingham, AL	872,000
28.	Kansas City, KS	1,647,000	68.	Fresno, CA	835,000
29.	San Francisco, CA	1,646,000	69.	Syracuse, NY	754,000
30.	Cincinnati, OH	1,581,000	70.	Tulsa, OK	743,000
31.	San Jose, CA	1,557,000	71.	Tucson, AZ	732,000
32.	Norfolk, VA	1,529,000	72.	Ventura, CA	703,000
33.	Fort Worth, TX	1,464,000	73.	Akron, OH	677,000
34.	Indianapolis, IN	1,462,000	74.	El Paso, TX	665,000
35.	Milwaukee, WI	1,456,000	75.	Omaha, NE	663,000
36.	Sacramento, CA	1,441,000	76.	Albuquerque, NM	646,000
37.	San Antonio, TX	1,437,000	77.	Tacoma, WA	638,000
38.	Columbus, OH	1,423,000	78.	Scranton, PA	637,000
39.	Fort Lauderdale, FL	1,383,000	79.	Knoxville, TN	631,000
40.	Orlando, FL	1,361,000	80.	Gary, IN	620,000

81.	Toledo, OH	614,000
82.	Allentown, PA	612,000
83.	Harrisburg, PA	610,000
84.	Bakersfield, CA	609,000
85.	Youngstown, OH	604,000
86.	Springfield, MA*	584,000
87.	Baton Rouge, LA	558,000
88.	Jersey City, NJ	552,000
89.	Wilmington, DE	539,000
90.	Little Rock, AR	538,000
91.	New Haven, CT*	527,000
92.	Charleston, SC	522,000
93.	Sarasota, FL	518,000
94.	Stockton, CA	518,000
95.	Ann Arbor, MI	515,000
96.	Mobile, AL	512,000
97.	Wichita, KS	507,000
98.	Columbia, SC	486,000
99.	Vallejo, CA	483,000
100.	Fort Wayne, IN	469,000

* Population figures for New England's city and town based MSAs are for 1992, while others are for 1994.

APPENDIX F - IMPLEMENTATION SCHEDULE

Implementation must be completed by the carriers in the relevant MSAs during the periods specified below:

10/97-12/97		1/98-3/98		4/98-6/98	
Chicago, IL	3	Detroit, MI	6	Indianapolis, IN	34
		Cleveland, OH	20	Milwaukee, WI	35
				Columbus, OH	38
Philadelphia, PA	4	Washington, DC	5	Pittsburgh, PA	19
		Baltimore, MD	18	Newark, NJ	25
				Norfolk, VA	32
Atlanta, GA	8	Miami, FL	24	New Orleans, LA	41
		Fort Lauderdale, FL	39	Charlotte, NC	43
		Orlando, FL	40	Greensboro, NC	48
				Nashville, TN	51
				Las Vegas, NV	50
		Cincinnati, OH	30		
		Tampa, FL	23		
New York, NY	2	Boston, MA	9	Nassau, NY	13
				Buffalo, NY	44
Los Angeles, CA	1	Riverside, CA	10	Orange Co, CA	15
		San Diego, CA	14	Oakland, CA	21
				San Francisco, CA	29
				Rochester, NY	49
Houston, TX	7	Dallas, TX	11	Kansas City, KS	28
		St. Louis, MO	16	Fort Worth, TX	33
				Hartford, CT	46
Minneapolis, MN	12	Phoenix, AZ	17	Denver, CO	26
		Seattle, WA	22	Portland, OR	27

7/98-9/98		10/98-12/98	
Grand Rapids, MI	56	Toledo, OH	81
Dayton, OH	61	Youngstown, OH	85
Akron, OH	73	Ann Arbor, MI	95
Gary, IN	80	Fort Wayne, IN	100
Bergen, NJ	42	Scranton, PA	78
Middlesex, NJ	52	Allentown, PA	82
Monmouth, NJ	54	Harrisburg, PA	83
Richmond, VA	63	Jersey City, NJ	88
		Wilmington, DE	89
Memphis, TN	53	Birmingham, AL	67
Louisville, KY	57	Knoxville, KY	79
Jacksonville, FL	58	Baton Rouge, LA	87
Raleigh, NC	59	Charleston, SC	92
West Palm Beach, FL	62	Sarasota, FL	93
Greenville, SC	66	Mobile, AL	96
		Columbia, SC	98
Honolulu, HI	65	Tulsa, OK	70
Providence, RI	47	Syracuse, NY	69
Albany, NY	64	Springfield, MA	86
San Jose, CA	31	Ventura, CA	72
Sacramento, CA	36	Bakersfield, CA	84
Fresno, CA	68	Stockton, CA	94
		Vallejo, CA	99
San Antonio, TX	37	El Paso, TX	74
Oklahoma City, OK	55	Little Rock, AR	90
Austin, TX	60	Wichita, KS	97
		New Haven, CT	91
Salt Lake City, UT	45	Omaha, NE	75
Tucson, AZ	71	Albuquerque, NM	76
		Tacoma, WA	77

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Report No. DC 96-82 ACTION IN DOCKET CASE August 8, 1996

COMMISSION IMPLEMENTS DIALING PARITY, NONDISCRIMINATORY ACCESS, NETWORK DISCLOSURE, AND NUMBERING ADMINISTRATION PROVISIONS OF THE TELECOMMUNICATIONS ACT OF 1996

(CC Docket Nos. 96-98, 95-185, 92-237, IAD File No. 94-102, NSD File No. 96-8)

The Commission today took action to implement the dialing parity, nondiscriminatory access, network disclosure and numbering administration requirements of the Telecommunications Act of 1996 (the 1996 Act). In an Order adopted today, the Commission lowers operational barriers to competition, consistent with the Act's pro-competitive, de-regulatory, national telecommunications policy framework. Together with the Interconnection Order which the Commission adopted on August 1, this Order fulfills the Commission's responsibility to issue rules implementing Section 251 of the 1996 Act within six months after enactment.

In the Order adopted today, the Commission states that its decision would, consistent with the 1996 Act, benefit consumers by making components of existing local telephone service -- dialing, telephone numbers, operator services, directory assistance, and directory listings -- available to all competitors on an equal basis.

The following summarizes the key issues addressed in the Report and Order.

Section 251(b)(3): Dialing Parity

The 1996 Act requires local exchange carriers (LECs) to provide dialing parity to providers of telephone exchange and toll services.

The Commission's decision adopted today will promote competition in the local and long distance telephone markets by allowing customers to choose different carriers for different services without having to dial extra digits (dialing parity). To achieve this objective, the Commission establishes minimum federal standards that build upon the states' efforts to promote competition in local and intraLATA toll services. The Commission concludes that the 1996 Act requires LECs to provide dialing parity with respect to all telecommunications services that require dialing to route a call and that the dialing parity obligation encompasses international as well as interstate, intrastate, local, and toll calls. The Commission does not require commercial mobile radio service (CMRS) providers to provide dialing parity.

(over)

The Commission concludes that the 1996 Act requires, at minimum, that customers be entitled to select different carriers for their intraLATA and interLATA toll calls. Consequently, the Commission requires all LECs to implement toll dialing parity using the "full 2-primary interexchange carrier," (Full 2-PIC) presubscription method no later than February 8, 1999.

Section 251(b)(3): Nondiscriminatory Access

The 1996 Act requires LECs to permit competing providers of telephone exchange service and toll service to have "nondiscriminatory access to telephone numbers, operator services, directory assistance and directory listings." In the Order, the Commission concludes that "nondiscriminatory access" encompasses both (1) nondiscrimination between and among carriers in rates, terms, and conditions of access; and (2) the ability of competing providers to obtain access that is at least equal in quality to that of the providing LEC. The Commission further concludes that the term "nondiscriminatory access to telephone numbers" requires LECs to permit competing providers to have access to telephone numbers that is identical to the access that a LEC provides itself.

The Commission also concludes that "operator services" means any automatic or live assistance to a consumer to arrange for billing or completion of a telephone call, including services such as busy line verification, emergency assistance, and operator assisted directory assistance. The Commission states that any customer of a LEC that provides operator services should be able to obtain these services by dialing "0" or "0-plus" the desired telephone number. If a dispute arises regarding a competitor's access to operator services, the burden will be upon the providing LEC to demonstrate that it has provided nondiscriminatory access and that any disparity is not caused by factors within its control. The Commission finds that LECs providing directory assistance must permit access to this service to competing providers that is at least equal in quality to the access that the LEC provides to itself, and must share directory listings with competing service providers, in "readily accessible" tape or electronic formats, upon request, and in a timely manner.

The Commission concludes that the 1996 Act's prohibition on unreasonable dialing delay applies to both the provision of local and toll dialing parity and nondiscriminatory access to operator services and directory assistance. The dialing delay experienced by a connecting LEC customer should not be greater than the delay a customer of the LEC providing nondiscriminatory access would experience for the same call of the same type.

Section 251(c)(5): Network Disclosure

The 1996 Act imposes upon incumbent LECs the duty to provide reasonable public notice of changes in the information needed to transmit and route services using a LEC's facilities or networks. Incumbent LECs must provide reasonable public notice of any other changes that would affect the interoperability of those facilities or networks. To implement this provision of the 1996 Act, the Commission specifies how these public notices must be made. The Commission concludes that "information necessary for the transmission and

routing" means any information in the incumbent LEC's possession that affects an interconnector's performance or ability to provide services. The Order also concludes that incumbent LECs' network disclosure obligations should extend to network changes that affect either telecommunications or information service providers, and it defines "interoperability" as the ability of two or more facilities, or networks, to be connected, to exchange information, and to use the information that has been exchanged.

Section 251(e): Numbering Administration

Section 251(e)(1) of the 1996 Act states that the Commission has "exclusive jurisdiction over those portions of the North American Numbering Plan that pertain to the United States." The Act also requires the Commission to "create or designate one or more impartial entities to administer telecommunications numbering and to make such numbers available on an equitable basis." The Commission concludes that it has taken appropriate action to designate an impartial number administrator. It further concludes that the Commission should retain its authority to set policy with respect to all facets of numbering administration, but authorizes the states to resolve matters related to implementation of new area codes, subject to the guidelines set forth in the Order. The Commission authorizes Bellcore and the LECs to continue to perform number administration functions until those functions are transferred to a new North American Numbering Plan Administrator.

The Commission's decision prohibits service-specific or technology-specific area code overlay plans. States may employ all-service overlays only if they also mandate 10-digit dialing for all local calls within the area affected by the area code change and ensure the availability of at least one NXX in the existing area code to every telecommunications carrier authorized to provide telephone exchange service, exchange access, and paging services in that area, including CMRS providers.

The Commission requires that: (1) only "telecommunications carriers" as defined in the 1996 Act be ordered to contribute to the recovery of the costs of establishing numbering administration; and (2) such contributions shall be based on each contributor's gross revenues from its provision of telecommunications services reduced by all payments for telecommunications services and facilities that have been paid to other telecommunications carriers.

The Commission denies the petition for expedited declaratory ruling filed by the Texas Public Utility Commission based on the Commission's finding that the Texas Commission's wireless-only area code overlay plan violates guidelines set forth in the Commission's *Ameritech Order* (IAD File No. 94-102). The Order also addresses petitions for clarification or reconsideration of that decision, as well as the decision calling for the creation of a neutral North American Numbering Plan Administrator (CC Docket No. 92-237).

(over)

Action by the Commission August 8, 1996, by Second Report and Order and Memorandum Opinion and Order (FCC 96-333) Chairman Hundt, Commissioners Quello, Ness, and Chong.

-FCC-

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Before the
Federal Communications Commission
Washington, D.C. 20554

FCC 96-333

In the Matters of	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98
Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers	)	CC Docket No. 95-185
Area Code Relief Plan for Dallas and Houston, Ordered by the Public Utility Commission of Texas	)	NSD File No. 96-8
Administration of the North American Numbering Plan	)	CC Docket No. 92-237
Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech-Illinois	)	IAD File No. 94-102

SECOND REPORT AND ORDER AND MEMORANDUM OPINION AND ORDER

Adopted: August 8, 1996 **Released: August 8, 1996**

By the Commission:

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Section: **Paragraph:**